

What is claimed is:

1. A micorarray substrate comprising a patterned photoresist film having one or more spot regions therein, the photoresist film being detachable from the substrate.

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2. The microarray substrate of claim 1, wherein compounds having functional groups capable of covalently binding to probes are attached in the spot regions.

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3. The microarray substrate of claim 2, wherein the probes are proteins, nucleotides, or polysaccharides.

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4. The microarray substrate of claim 2, wherein the compounds having the functional groups are silane compounds with aldehyde, epoxy, or amine end groups.

5. A microarray comprising the probes immobilized in the spot regions of the microarray substrate of any one of claims 1 to 4.

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6. A method of detecting a target material, comprising:

(a) preparing a substrate having a patterned photoresist film, the patterned photoresist film being detachable from the substrate and having one or more spot regions therein;

(b) immobilizing probes in the spot regions to prepare a microarray;

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(c) contacting the probes and a sample containing the target material to react the probes and the target material;

(d) detaching the photoresist film from the microarray to remove the target material nonspecifically bound to the photoresist film; and

(e) detecting the reaction between the target material and the probes.

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7. The method of claim 6, wherein the probes are proteins, nucleotides, or polysaccharides.